ABSTRACT

A method and system for the automatic identification of audio, video, multimedia, and/or data recordings based on immutable characteristics of these works. The invention does not require the insertion of identifying codes or signals into the recording. This allows the system to be used to identify existing recordings that have not been through a coding process at the time that they were generated. Instead, each work to be recognized is "played" into the system where it is subjected to an automatic signal analysis process that locates salient features and computes a statistical representation of these properties. These features are then stored as patterns for later recognition of live input signal streams. A different set of features is derived for each audio or video work to be identified and stored. During real-time monitoring of a signal stream, a similar automatic signal analysis process is carried out, and many features are computed for comparison with the patterns stored in a large feature database. For each particular pattern stored in the database, only the relevant characteristics are compared with the real-time feature set. Preferably, during analysis and generation of reference patterns, data are extracted from all time intervals of a recording. This allows a work to be recognized from a single sample taken from any part of the recording.